February 14, 1998

Dear Friends:

I plan to run the names, addresses and telephone numbers of all subscribers in the next Keyletter. If you do NOT wish to have this information run please let me know.

I frequently receive enquiries from new collectors about the Keyletter. A common statement is "I am a new collector and don't have much of a collection, and I have a lot to learn". Well guys, I am an **old** collector, and I too have a lot to learn! Since we have a lot of newcomers I will offer some free advice to them. I learned these things the hard way.

1. **Document your collection.** If you have a computer, use a database. If not, use 3 X 5 cards. At a minimum, assign a control number to each key, tag it in a manner that will not damage it, and list where you obtained it, the cost, the previous owner, the location and a general description.

2. **Pack your dupes carefully.** Sooner or later you will have extra keys. Buy some bubble pack so you can properly wrap them. Number the boxes they go into and update your database with the location. This may seem a little silly if you have only a few extra keys but it will pay off later.

3. **Build a library and keep it organized.** Buy any books on telegraphy that you can get your hands on. You will be surprised at how often they turn up in book stores, garage sales, and junk stores.

4. **Make fair trades and sales.** There are not all that many collectors out there, and your reputation is very important. No transaction is complete until both sides are completely happy. All sales or trades should be made with accurate descriptions and should be made on approval.

5. **Shut up and pay the price......** Gil Schlehman gave me this advice when I was a novice collector and of course I ignored it. I have a sad memory of a swap meet where a guy had quite a nice spark key for sale. I attempted to dicker him down and as a result he refused to sell it to me at any price. Likewise, I have turned down some prime stuff over the years only to find out later that the asking price was a bargain. Live and learn.

6. **Make fair purchases.** Sooner or later you will be handed an item by someone handling a silent key sale and asked what it is worth. These is a deadly situation which must be handled carefully. If you buy the item, dig deep and pay a fair price. If you are unable to, state what the fair price is and that you will make an offer below it. You are in deep kimchi if you get a reputation as a cheat. Likewise, a reputation as a honest buyer will cause choice items to come your way. These will be sent by word of mouth referrals from people that have appreciated your honesty. I use the "ouch" system of appraisal in these circumstances. I examine the item and ask myself "would I buy this at an antique store at $10?", "$20?". I keep raising the price until I feel a good internal "ouch" at the price. When the "ouch" is accompanied with a perceptible wince I have arrived at a fair price.

7. **Get rid of the wire wheel!** I have seen more fine items destroyed with a wire wheel than by any other means.

8. **Leave it alone, dammit!** If you don't know what you are doing with a key, ask someone that does, or dig through the back issues of Keyletters for restoration tips. You can always work on it later, but you can seldom undo damage done through ill-advised cleaning.

9. **Dig deep and buy those expensive gunsmiths screwdrivers.** Trust me on this. I mentioned the screwdriver set sold by Brownells back in Keyletter #5. Their "Super-Set" currently costs $87.52, but I will promise you that the cost will seem trivial if you mess up a prime item when a screwdriver blade slips. Brownells address is 200 S. Front St., Montezuma, IA 50171-9989.

10. **Buy some Screw-Grab.** Again, trust me on this. See page 134 of Keyletter # 13.

11. **Do some research!** Most old timers will tell you that the best fun that they have had was researching a key manufacturer. This doesn't take any particular skill. If you live in an area where a key manufacturer lived or made keys do some snooping around. You can often locate former employees of the company, and the local newspaper archives or library generally has information. Don't forget the genealogical society - it is amazing what they can provide from their files.

Well, I'll climb off the pulpit and get to business here. If anyone else has some more free advice, please pass it along.

Speaking of Brownells, I recently purchased some interesting items from them. One is a magnetic parts tray that I use when disassembling keys. It captures ferrous parts and saves me a lot of time crawling around on the floor. Another is 00 bronze wool. It is gentler than steel wool and is easy on finishes. I wouldn't be without it. Like any abrasive though - BE GENTLE! A package costs about $8.00.

I really took a flyer and ordered some spring stock and a set of spring winding pliers. The pliers are items 015-125-576 and 015-125-577 in catalog # 50 and cost me $42.00. One jaw is round and tapered, and the other is trough shaped. With some practice you can do an acceptable job of winding those conical springs that you need so bad. When I say acceptable I mean that they work, but don't look all that great. I am still practicing. The trick is to clamp the wire in the pliers, bend it around the round jaw, move the spring in the jaws and bend again. It does not work if you try to force the spring to bend between the jaws. I also bought an assortment of coil spring stock in 12" lengths and some .045 spring wire stock that has been very handy.

I consulted my neighbor that "knows everything" (I say this with the greatest respect - he indeed knows everything. I swear he could build an atomic bomb.....) about spring bending, and he tells me that they are customarily wound over a mandrel on a lathe-like device. I have a small bench lathe, so as soon as I get some supplies I intend to give it a try. Does anyone have any suggestions?

Attention rivet counters! I recently found a copy of the December, 1947 issue of CQ. It has an ad (see page 250) for the "Super-Deluxe Vibroplex". This was the original name for the Presentation model. This ad moves the production of this model up a month from the date shown in Tom French's book *The Vibroplex Collector's Guide*.

Paddlette BP. Bob Hammond visited in early January and brought his new "Paddlette BP" by for inspection. I am impressed with it, especially the tiny size. The base fits easily on a large postage stamp with a lot of stamp showing around the edges. It is only 3/4 " X 1 1/4" (less than 1 square inch) and weighs 0.8 ounce, including the connecting cable. The "BP" stands for "Backpacker" and was designed for QRP mobile operators and backpackers. It has only two moving parts and comes complete with a nicely designed leg mount. The mount has a nylon webbing strap with a quick release buckle. The key and mount fit into a lightweight carrying case that is included in the $49.50 price. I especially like the paddles. They are larger than on the old Paddlette and have a very good feel. The key is tiny, but I quickly adapted myself to using it. Bob tells me that he shipped his 200th Paddlette in late January, so business is booming. The BP costs $47.00 plus $2.50 shipping and handling. Send check or money order to: The Paddlette Co. P.O. Box 6036, Edmonds, WA 98026. (425)743-1429.

I pulled the following message from the local packet BBS:

Marconi Plaque Stolen

> The brass plaque erected in 1947 to mark the 50th anniversary of Marconi's transmission between Lavernock and Flat Holm island has been stolen. The plaque, located close to the site of Marconi's transmissions at Lavernock Point, was chiseled off the wall where it stood for 50 years without a mark. Glyn Jones, GW0ANA, of the Barry Amateur Radio Society, said he was "disgusted" by the theft. "It's a sad reflection on life when a piece of history is stolen. With the help of RAD-COM maybe we may find it yet." Fortunately, the Barry club has a fibreglass replica which can be used to recreate a new brass plate, and the club has now launched an appeal in order to raise money for this.

I was lucky to find a copy of the 1920 Year Book of Wireless Telegraphy and Telephony in an antique store. It has over 1300 pages and was apparently a reference for maritime radio operators. It has listings of ship and land call signs, radio regulations for all countries, and miscellaneous items like currency exchange. They are also biographies of prominent people in wireless, many of them well known today. I have several of Elmer Bucher's books and was interested to see his biography:

> Bucher, Elmer E. Born. Akron, Ohio, November 11th, 1885. Educ. Academy Oberlin, Ohio. Joined the De Forest Wireless Telegraph Company as experimental engineer, 1903. Constructed several high-power stations in the Middle West and on the Gulf Coast for this firm. Joined the United Wireless Telegraph Company as installation and experimental engineer, 1907. Installed the first ship stations of the United States Navy. Organized the United Wireless Telegraph Company's School, 1909. Instructing engineer and chief inspector of that company for more than two years. Associated himself with the Y.M.C.A., New York, in the initiation of wireless schools, 1910. Joined the Marconi Wireless Company of America, as instructing engineer, 1912, which position he still holds. Devoted many years to experimental long-radio distance wireless work and holds a large number of U.S. wireless patents. Technical editor of the "Wireless Age," 1913, and assisted in the organization of the National Amateur Wireless Association of America. Author of "Practical Wireless Telegraphy" and other works. Member of the Institute of Radio Engineers.

MUSEUMS: The November 26, 1997 issue of Radio World has a piece on the Irish Museum of Radio in Cork, housed in the studios where radio station 6CK began broadcasting in 1927. There's an extensive Marconi exhibit, rare photographs of a 1907 Poulsen arc transmitter site, and Atlantic Cable items including cable samples, Morse keys, mirror galvanometers, and historic memorabilia. There's also lots of microphones, crystal sets, vintage receivers, and disk cutting equipment.

Electronic Feather Touch Key. Tony Rogozinski enquired about an "Electronic Feather Touch Key" that he recently acquired. This is an electronic keyer with built in paddles. I have one in my collection, and it is the only one that I have seen. My database indicates that the first Data Engineering advertisement was in the 10/71 issue of Ham Radio magazine. They advertised steadily in Ham Radio and 73 until 5/74. Their ads show no less than five addresses:

- Box 1245 Springfield, VA
- Box 12245, Springfield, VA
- Ravensworth Industrial Park, Springfield, VA
- 5554 Port Royal Road, Springfield, VA
- P.O. Box 688, Albany, GA

I suspect that the first four addresses are the same. They made two versions of the EFT. The first was reviewed in the 5/72 issue of Ham Radio. (see page 248) It had paddles that look like parallel stiff horizontal wires with a center insulator and looks a lot like the CODAX. The chassis is one piece like an inverted cake pan. The second model has a two piece sheet metal chassis, and the paddles are a solid block with imbedded contacts. Mine is the second model.

EFT also made the Cricket 1 keyers. The 12/74 QST has an ad for the "Data Signal Inc." - "Successor to Data Engineering, Inc." and their address is at 2212 Palmyra Road, Albany, GA 31701. This ad shows the Cricket 1 and they advertised periodically until 1977. The 12/77 Ham Radio ad does not show the Cricket, but has the "MIGHTY MOS" keyer/paddle that looks a lot like the old Ten-Tec keyers. This was the last ad that I have for Data Signal Inc. It is interesting to note that Kantronics came out with the "Feather Touch" keyer in 1/78. I suspect that they are similar.

Go-Devil. I recently received an enquiry about the "Go-Devil bug. This brand name had at least three incarnations. The A.H. Emery Go-Devil was first advertised in 1933. It was reviewed in the October, 1933 QST. (see page 249) The ads show a very simple damper - it looks like a bent wire up through 11/34. I have a gap in ad copy until 12/35 and that illustration shows a more substantial damper, though the drawing is not distinct. The 12/35 ad for "the Improved Model S" shows that it was made by the "Go-devil Instrument Co". Previous ads showed that they were made by A.H. Emery and the address was the same. Steve Wilson sent along the Go-Devil product review (see page 249) from the December, 1954 issue of QST which shows "the New Go-Devil" made by Wheaton Research. I have no other information on this company.

Doug Seneker: I made my first pilgrimage to the AWA Convention in Rochester last September and was duly impressed. The warm welcome from other key collectors, the quality of the flea market and seminars, is going to call me back again next year as well. Even the XYL is in favor of the trip, as long as we stop at Niagara Falls again.

Keys .... I may have a method to identify J-38 keys made by Telegraph Apparatus Co. (TAC). At a surplus store in Illinois recently I picked up yet another style of Signal Corps code training set, smaller than most. Inside was a TAC "Oscillatone" (Keyletter #4, page 22) and five slots containing unused J-38 keys with no manufacturer's mark. Inside the Oscillatone, which bore a metal TAC ID plate, was the cut-off teardrop key pictured in Tom French's super biography of Ted McElroy, on page 121. If everything else is TAC, the reasonable assumption is that the J-38s are TAC also.

The unique characteristics of these 5 identical keys appeared to be as follow. All cross-hatching on nuts and screws is straight across, 90 degrees. The thicknesses are not the same as the McElroy Electronics J-38 in Tom's book. The contacts are of very small diameter and not alike. The contact on the lever is 1/8", but on the anvil the diameter is only 3/32", almost half as large. The frame is open in the center, "Bunnell style" and like McElroy's, but it is zinc plated and unpainted. The circuit-closer lever is extra wide, 3/8", and looks "odd" as a result. There are no markings on the underside of the frame or phenolic base other than the red Signal Corps stamp on the latter. Corners on the base are square and sharp though the top edge is beveled in the customary fashion. All metal components but the frame, lever and spring are brass. The lever is thinner than some J-38's (Lionel for example) at 3/16 " wide.

Fleron. Dan Howard sent me the August/October copy of his excellent newsletter "Old Familiar Strains". I mentioned the M.M. Fleron & Son company in Keyletter # 22. Coincidentally Dan had written a major article in a recent issue of his newsletter about Fleron, and he has allowed me to reprint it. Old Familiar Strains is "A newsletter for collectors of radio strain insulators and related items". If you are interested in subscribing contact Dan at 2940 SE 118th Ave., Portland, OR 97266-1602.

M.M. Fleron & Son Inc.

by Dan Howard

Not a manufacturer but a highly successful retailer, the M.M. Fleron Company sold everything the radio hobbyist of the 1920's or 1930's would need. This family-owned company sold its own brand of insulators, lightning arresters, and antenna accessories mail order, through jobbers, and in a Trenton, NJ, storefront.

L. Fleron Cutler & Grinder. The company's founder, Louis Fleron, and his sister Elizabeth emigrated from Fleron, Belgium, in the 1880's. Louis brought with him metal-working skills learned from his father who made iron work, including bed frames and firearms. After marrying Mary Melissa Ackerman, Louis opened a store in Paterson, NJ. In addition to selling cutlery, razors and electrical supplies, Louis repaired locks and provided knife and razor grinding services.

M.M. Fleron & Son, 18 So. Broad St. Trenton NJ. The Fleron's and their three young sons, Russell, Louis Jr., and Frederic, moved to Trenton, NJ, around the turn of the century. Louis opened his new store at 18 So. Broad St. in Trenton under the name M.M. Fleron & Son in honor of his wife, Mary Melissa.

Bercy's Laboratories. At their new location, the Flerons added barbering and beauty supplies to their offerings. According to trademark files, the company trademarked at least two "medicinal" products, operating under the name "Bercy's Laboratories". The first, "Icy Rub", had been used since 1905 for an astringent. Another, "Monarch," was a hair tonic trademark dating from 1913. Mr. Fleron had an on-going interest in electricity and telephones. At one point he manufactured and applied for a patent on a "self-transmitting" telephone. I also have a copy of a schematic that he drew in 1918 of a working wireless transmitter and receiver. Unfortunately, Mr. Fleron did not live to see the real advent of the consumer radio market in the 1920's, as he passed away in 1919.

M.M. Fleron and Son Inc. 112 No. Broad St. Trenton, NJ. Although we don't know when they moved from 18 So. Broad St., ads from early 1924 place the company a couple of blocks down at 112 No. Broad St. In 1923, presumably under the direction of Russell, the company began advertising radio antenna insulators for sale in QST and other publications. The earliest Fleron advertisement in my collection is for porcelain insulators from the April 1923 QST. The May 1923 QST was "the antenna issue." Included in the issue were the results of laboratory performance tests of antenna insulators. The American Radio Relay League purchased six samples each of twenty types of strain insulators. The samples were divided and sent to two independent laboratories for testing. QST technicians selected two styles of Fleron dry-process porcelain insulators for testing. The first, a Fleron #2 porcelain ball insulator, performed well when dry but tended to take moisture (as might be expected from dry process porcelain). The other, a ribbed porcelain rod, probably a Fleron #4, also performed well. The date of the tests would suggest that Fleron insulators were sold as early as 1922.

Adding to the line. By 1924, in addition to porcelain strain insulators, Fleron was advertising porcelain tube sockets and other radio accessories. The first Fleron stand off insulator (No. 8) was simply a #4 strain insulator coupled with a brass fitting to hold it to the wall. In 1924, the company introduced the unusual, refillable lightning arrester. Apparently there was concern that the internal gap would break down after passing sparks. Fleron, L.S. Brach, Frost, and others sold lightning arresters which could be " refilled". In fact, some manufactures still sell lightning arresters with replaceable points. Once the company had a lightning arrester on the market, it was possible to begin selling complete antenna kits. The January, 1925 price sheet lists two of them, the #350 and the #500.

A Touch of Glass. Introduced in 1924, Fleron originally offered both a 3" and a 4" ribbed glass strain insulator. Of the Fleron glass insulators, the most elusive is the 4" #44 five-rib insulator. The smaller insulators are more common but come in a number of variations. Figure 3 shows a side-by-side comparison of several from Jim Singleton's collection.

From the mid-1920's through the early 1930's, the product line expanded to include other insulators and a variety of lightning arresters. The Fleron retail store closed during the depression. My latest advertisement is from the May, 1934 QST. In the 1930's the company had introduced a "Boy Scout Signaler," a device for learning Morse code. After the store closed, the brothers went into business producing signal senders exclusively. Louis Jr. was kept busy assembling units. Fred, who had always worked as salesman, traveled throughout the Thirties selling the signalers. After M.M. Fleron and Son went out of business, Russell Fleron opened his own cutlery and beauty supply store, Fleron Beauty Supply. In 1942, Fred Fleron moved his family to Wesley, MA, and went to work for Hasbro selling educational products.

It has been established that Fleron was a retailer not a manufacturer. But who made the porcelain and glass products for Fleron? My research suggests that Cook Pottery Co., also of Trenton, NJ, is a likely source of the porcelain insulators. Many of the Fleron insulators and arresters are gray clay glazed black, an unusual combination. Without boring the reader with the details, Fleron's gray and black products resemble insulators known to be made by Trenton Pottery. That, and the companies' proximity to one another, lead me to believe that a connection exits. A follow up on Cook Pottery's other radio insulator products is planned for a future issue. I am still at loss to determine who made the glass insulators. The variations that Jim Singleton has observed may indicate that the company contracted with more than one source.

Bart Bartlet: I found the story on Elmer Burlingame and his Telegraphing Typewriter a fascinating article. This plus other references to land-line Morse struck me as quite a coincidence: my December ARRL proficiency qualifying run was entirely devoted to information gleaned from a 1945 in-house newsletter that contained reminiscences of a turn-of-the-century Morse operator, Jack Dunn. I've included a copy and one item you will note is reference to a Yetman typewriter transmitter. Jack gave the date as 1901.

The material cannot be considered as historically correct as Jack was drawing on his own memory when he recounted events of his early years. Jack Dunn was quite a character. He came to work at Press Wireless during WWII. After years as a Morse operator, in 1911 he went to work for the Federal Telegraph Company in San Francisco where Dr. Lee DeForest was, as he put it, "the head man." He said his license in those days was called a "certificate of skill." He served as radio operator on both freighters and passenger ships. He recalled the sinking of the Titanic and how this event resulted in tightening of previously lax regulations governing use of radio. During the years when San Francisco was his home port, he got involved in some sort of fracas in which he received a serious stab wound. He used to comment that he had been "on borrowed time" ever since. I lost track of Jack after the war, but he surely is a Silent Key. He started his first job in 1898. The following is Jack's story:

Looking back at the Turn of the century land-line Morse was the Communications medium for all types of message handling. The press depended on it for speedy coverage of news events. Railroads used Morse wires for dispatching train orders and telegrams and cablegrams took care of public and commercial needs for rapid transfer of mechanization.

An operator sent with a hand key and copied the coded letter combinations from a sounder with pen and ink. These were often referred to as the "ink slinging days" of telegraphy. An operator fresh from a learning course in Morse code might fall into the habit of being able to send fast but have only limited receiving ability. Such an operator was termed an "outbounder" by the more experienced men on Morse circuits. One such outbounder was Jack Dunn who was the operator said to have handled the first cablegram to make a complete circuit of the globe. In an account of his experiences, Jack said the text of the message read "around the world". He remembers using a rented typewriter which he thought might improve his copying ability, but when he delivered the message it read "amund the world". The typewriter was a Remington Number 1. It was a cumbersome machine with an oversized brass cylinder and a rubber shifting arrangement. With the advent of the Remington number 2, use of the typewriter, or "mill" began to show promise.

A demonstration by a Morseman who was also a touch typist copying at fifty words per minute signaled the end of the so called "ink slinging" days of the telegraph. Meanwhile, inventors were working on improvements to supplant the venerable hand key. In 1901 the Yetman Typewriter transmitter was invented. This was a typewriter with a cylindrical selector which made morse characters when the keys were hit. Used mostly by railroad dispatchers and commercial operators it never became popular. This may have been due to the invention of the telegraph bug by a man named McDonald who worked for Western Union in St. Louis. It has been described as operating just like present day bugs although a battery attachment was required. It was constructed on a wooden base. McDonald's instrument was followed by introduction of another replacement for the hand key. This was the Autoplex, a rather bulky instrument which also required a battery.

Shortly a third device known as the Mecograph appeared. There were two individual styles, but neither these instruments nor those before it enjoyed the success of a new bug that was introduced in 1905 by Horace G. Martin. This was the Vibroplex, used first by landline morse operators an still used by radio operators, particularly in the ranks of ham radio. Although other brands followed, none reached the popularity and general acceptance by telegraph operators everywhere as did the Vibroplex. It must be said however, that operators on Morse circuits showed considerable antipathy for bugs when these instruments first came into use. They called the dots "chippy" and remarked on how new owners seemed unable to properly adjust and manipulate the paddle for good sending. It has been said that the expression "he's bugs" had its origin in uncomplimentary remarks directed toward an erratic sender. A suggestion has also been heard that this was where the term "bug" to describe this new generation of sending keys got its start. In a matter of a few years, mills and bugs became the tools of the Morse operators trade. Whereas prior to this time, telegraph companies supplied pen and ink and the hand key was firmly anchored to the operating position now operators were required to furnish their own typewriters and bugs if the latter were their personal preference.

Dave Pennes called just before I went to press. He has approximately 30 bugs for sale or trade. If you want a list, sent him a SASE at 4607-C Santa Cruz Drive, Indianapolis, IN 46268-9605.

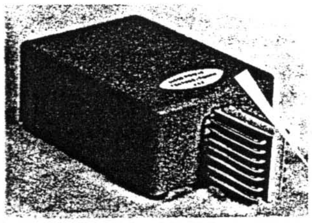
Doug Seneker, at long last is up on e-mail! His address is "n0wan@sofnet.com".

Lynn

73 - Lynn

HAM RADIO 5/72

ic electronic key



The Electronic Feather Touch Key is a completely solid-state key without paddle movement, spring tension or contact clearance adjustments or any keying contacts. Keying problems caused by contact corrosion and bounce as well as paddle tension and movement adjustments are no longer a concern. The key is the natural interface for the extremely low current, high speed integrated circuits used in solid-state electronic keyers.

The Electronic Feather Touch Key is essentially an electronic single-pole double-throw switch activated by finger touch. Touching the electronic grid paddle causes a silicon monolithic integrated level detector to conduct. Conduction of each level detector causes its output to remain at ground potential as long as a high-impedance short (finger) remains across two adjacent grids. The design of the grid paddle prevents erratic keying due to finger moisture.

The small size key was designed specifically to meet the needs of today's solid-state keyers and to eliminate those problems experienced with mechanical keys.

The key is built on a glass epoxy board housed in an attractive light blue cabinet. It can be powered by internal batteries or 3 to 4.5 Vdc at 10 mA can be taken from a keyer. The unit is weighted to keep it in place during operation. The new key is guaranteed for a year and sells for $19.95 wired and tested. More information is available from Data Engineering, Inc., Box 1245, Springfield, Virginia 22151, or use *check-off* on page 126.

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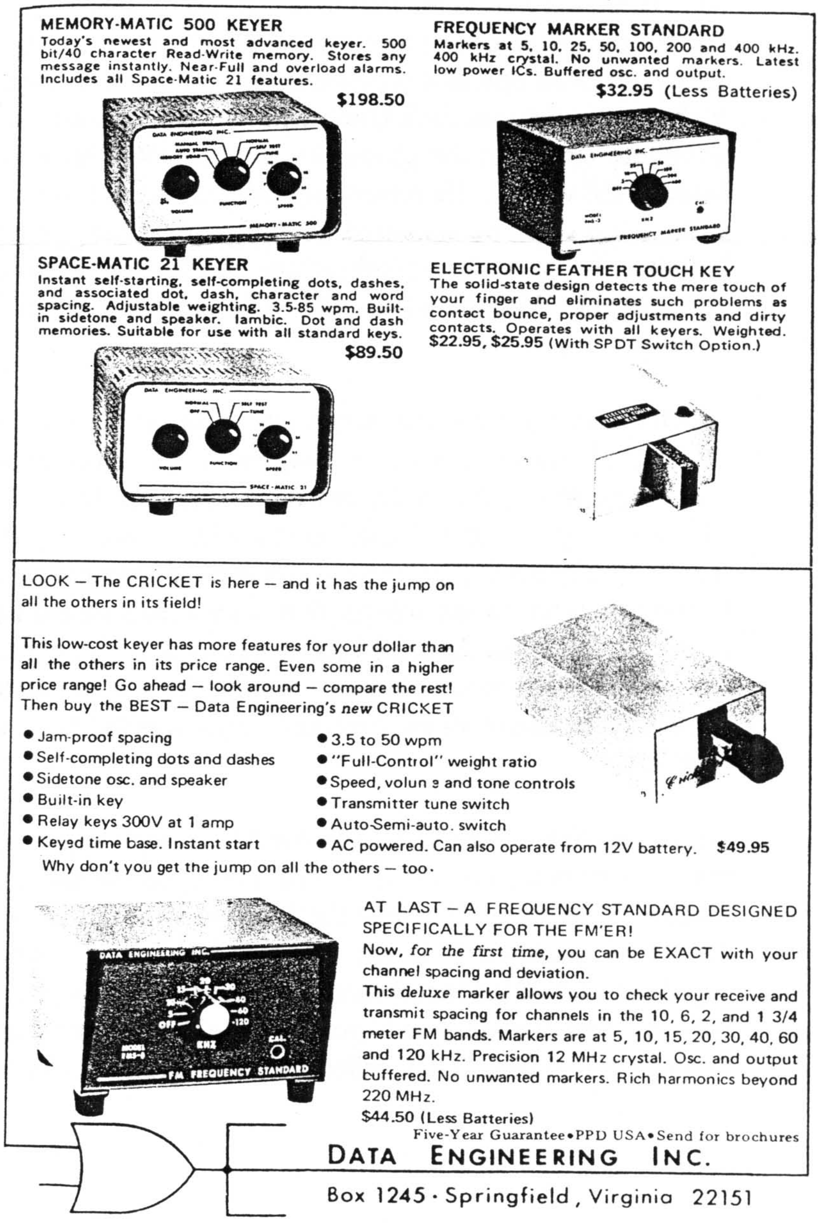


MEMORY-MATIC 500 KEYER
Today's newest and most advanced keyer. 500 bit/40 character Read-Write memory. Stores any message instantly. Near-Full and overload alarms. Includes all Space-Matic 21 features.
$198.50

FREQUENCY MARKER STANDARD
Markers at 5, 10, 25, 50, 100, 200 and 400 kHz. 400 kHz crystal. No unwanted markers. Latest low power ICs. Buffered osc. and output.
$32.95 (Less Batteries)

SPACE-MATIC 21 KEYER
Instant self-starting, self-completing dots, dashes, and associated dot, dash, character and word spacing. Adjustable weighting. 3.5-85 wpm. Built-in sidetone and speaker. Iambic. Dot and dash memories. Suitable for use with all standard keys.
$89.50

ELECTRONIC FEATHER TOUCH KEY
The solid-state design detects the mere touch of your finger and eliminates such problems as contact bounce, proper adjustments and dirty contacts. Operates with all keyers. Weighted.
$22.95, $25.95 (With SPDT Switch Option.)

LOOK – The CRICKET is here – and it has the jump on all the others in its field!

This low-cost keyer has more features for your dollar than all the others in its price range. Even some in a higher price range! Go ahead – look around – compare the rest! Then buy the BEST – Data Engineering's *new* CRICKET

- Jam-proof spacing
- Self-completing dots and dashes
- Sidetone osc. and speaker
- Built-in key
- Relay keys 300V at 1 amp
- Keyed time base. Instant start
- 3.5 to 50 wpm
- "Full-Control" weight ratio
- Speed, volume and tone controls
- Transmitter tune switch
- Auto-Semi-auto. switch
- AC powered. Can also operate from 12V battery. **$49.95**

Why don't you get the jump on all the others – too.

AT LAST – A FREQUENCY STANDARD DESIGNED SPECIFICALLY FOR THE FM'ER!
Now, *for the first time*, you can be EXACT with your channel spacing and deviation.
This *deluxe* marker allows you to check your receive and transmit spacing for channels in the 10, 6, 2, and 1 3/4 meter FM bands. Markers are at 5, 10, 15, 20, 30, 40, 60 and 120 kHz. Precision 12 MHz crystal. Osc. and output buffered. No unwanted markers. Rich harmonics beyond 220 MHz.
$44.50 (Less Batteries)

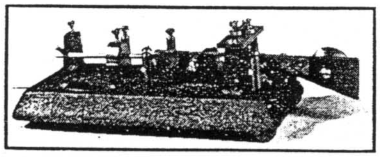
Five-Year Guarantee•PPD USA•Send for brochures

DATA ENGINEERING INC.
Box 1245 · Springfield, Virginia 22151

QST 10/33

A New Automatic Key

A NEW transmitting key, for which several features making it especially suitable for radio work are claimed, has recently been placed on the market under the name of "Go-Devil." Although resembling in several respects the automatic keys or "bugs" with which most of us are familiar, a number of improvements are incorporated in the design. Important among these is an arrangement which insures having the surfaces of the contacts perfectly plane at the instant of closing regardless of the contact-spacing adjustment, which reduces contact resistance and minimizes sparking and wear; and a choice of single or double speed in the dot lever action, accomplished by a simple change in the adjusting screws. When the double-ratio speed is used the dot contact swings through twice the arc described by the operator's hand in producing the movement; consequently the lever can be set for a very small movement for high-speed sending and the dots will be very distinct.

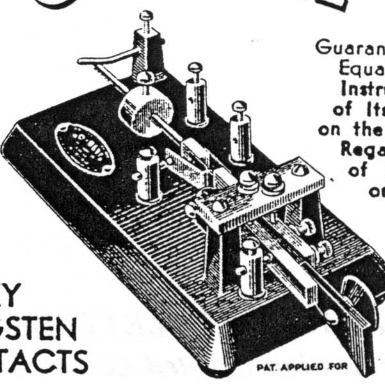


The Go-Devil key is provided with heavy coin-silver contacts, has a heavy cast-metal base to prevent "walking" during operation, and has a speed range of 10 to 50 words per minute with a single adjusting weight. The key is made by A. H. Emery, 263 Mill St., Poughkeepsie, N. Y.

$6.00
Postage Paid

R9 12/33

The
TRANSMITTING
GO-DEVIL



Guaranteed to Equal Any Instrument of Its Kind on the Market Regardless of Price or Make

HUSKY TUNGSTEN CONTACTS

WE PRODUCE ONLY
One "Good" Model

No Higher Priced Model Necessary for High Voltage

SUITABLE FOR beginners or experienced operators because it can be set from 10 to 50 words per minute with one single weight.

● Proof that the "GO-DEVIL" is the easiest operating instrument obtainable is the fact that it will actually operate by stroking the handle

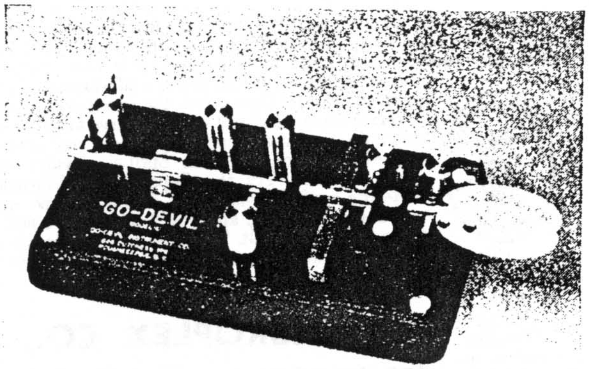
"WITH A FEATHER"

3 pound non-skid base, all other parts machined from solid brass. No flimsy parts. Guaranteed.

New Semi-Automatic Key

THE "bug" has been a part of the telegraphing picture for so many years that novelty in design is seldom considered as a possibility. The new Model U "Go-Devil" shown here, however, does have some interesting innovations — including, of all things, provision for changing it into a "sideswiper" by the flick of a finger. This is done by throwing over the small lever mounted on the rear stop so it locks the vibrator arm in place. This feature would be useful, too, in a key used to operate an electronic keyer, although the Model U as built has no separate external connections for the dot and dash circuits.

The new key uses a solid arm for both dots and dashes, and the spring tension is a screwdriver adjustment rather than the customary thumb screw and lock nut arrangement. The adjusting screws and springs are in the crosswise-mounted bar shown just to the left of the pivot bridge.



Contacts are $^3/_{16}$-inch silver and the vibrator reed is phosphor bronze. All working parts are machined. The entire assembly is mounted on an engraved metal plate, no connections being made to the hollow base casting. The vibrator arm is rather longer than usual, making slower speeds readily obtainable. The new key is made by the Go-Devil Instrument Co., 624 Dutchess Turnpike, Poughkeepsie, N. Y.

QST 12/54

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The N7CFO KEYLETTER is a seldom regular publication devoted exclusively to sharing information about telegraphy instruments and the lore of another age.

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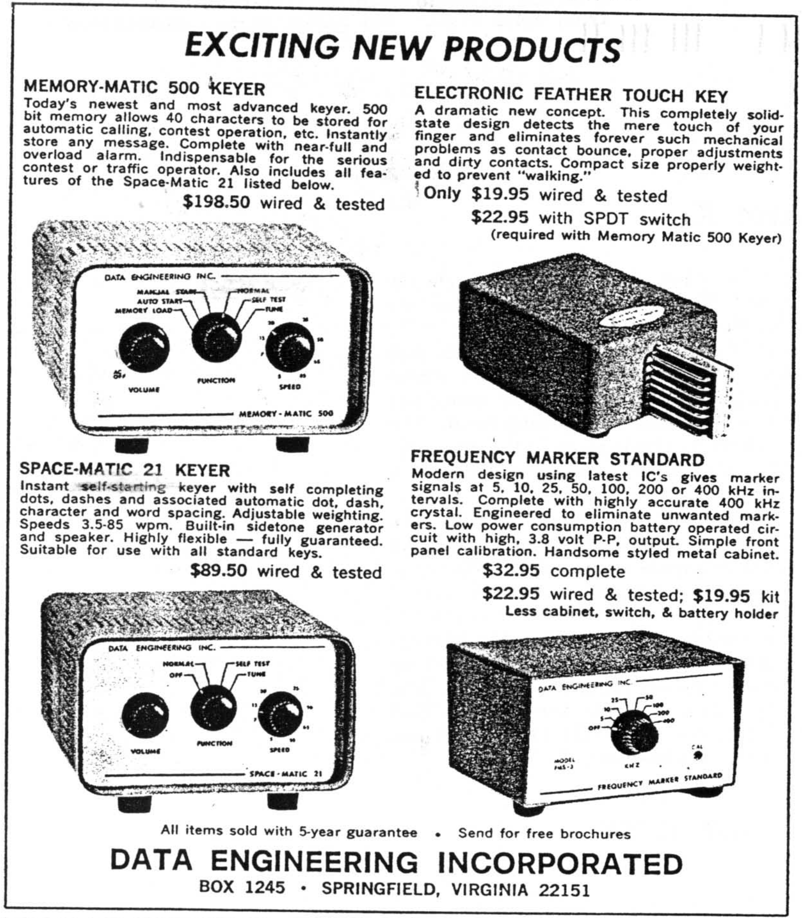

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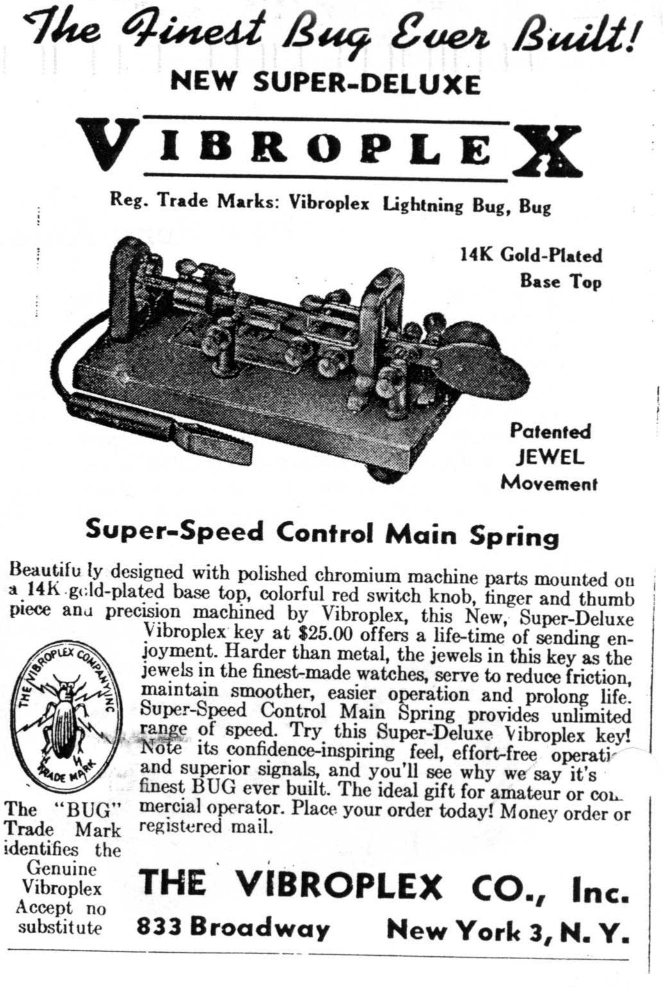

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